

**REMARKS**

The claims have been amended to require that the compounds are tubulin inhibitors. Support for this activity is found, for example, on page 4 of the specification at lines 7-11, page 13, lines 9-12, page 53, line 18-page 54, line 1, in Table 1 on pages 55-66, allowed claims 15-16 and throughout the specification. Claims 1 and 2 have also been amended to limit the compounds claimed to those with two, and only two, substituents in the phenyl ring directly attached to the pyrazine. The compounds 1-1 to 1-9 specified in addition to the generic description in claim 1 differ from the generic formula only in the nature of the substituents on the aryl moiety defined by A; the remaining portions of the molecule are consistent with the generic formula. That is, the substituents shown, MeS, OH, and CN are not on the list of substituents set forth in the definition of A, nor is the cyclopropyl amide in the last appearing compound, 1-9.

Accordingly, the structure of formula I in claim 1 has been redrawn so that what was previously  $R^4$  is required to be H. In claim 2,  $R^2$  is defined as 1-2 substituents, but when  $R^2$  is two substituents, n is 0 and Y is H, and conversely when  $R^2$  is 1 substituent, n cannot be 0 when Y is H.

Support for the specific structures added to claim 1 is as follows: compound 1-1 on page 43; compound 1-2 on page 46; compound 1-3 on page 47; compound 1-4 on pages 56 and 48; compound 1-5 on page 56; compound 1-6 on page 56; compound 1-7 on page 56; compound 1-8 on page 60; and compound 1-9 on page 62. New claims 18-19 are similar to existing claim 10 but depend from the remaining independent claims 2 and 9 respectively. New claim 20 is of the same form as claims 15-16 but depends from claim 9.

Thus, no new matter has been added and entry of the amendment is respectfully requested.

Inventorship

Accompanying this Request for Continued Examination is a petition under 37 C.F.R. § 1.182 requesting to add back the names of Xianyong Bu, Harrison Sikanyika and Michael Francis Harte. The application was originally filed with these inventors included and a declaration is already on file signed by all five inventors in the names of which the application was originally filed. However, during prosecution, in connection with a response filed 24 January 2011, a request under 37 C.F.R. § 1.48(b) requested deletion of the three inventors now being requested to be added. It was asserted in the 24 January response that this change was as a result of the amendments made to the claims.

However, upon reinvestigation by the assignee, it has been concluded that the amendment may not have resulted in the invention of Bu, Sikanyika and Harte no longer being claimed. In any event, the invention now being claimed results from the contribution of all five inventors originally named as will further be explained below. Therefore, a petition to restore these inventors is enclosed. As a declaration by these inventors is already on file, and the petition is filed merely to restore the originally named inventive entity, applicants respectfully request to be notified if a further declaration or any other further information or a further statement from said previously deleted inventor is required.

The invention as now claimed is focused on the contribution of all five originally named individuals. The claims are now directed to tubulin inhibitors. It was unexpectedly found, by the inventive group collectively, that compounds which have two, and only two, substituents on the phenyl ring directly appended to the pyrazine and that contain embodiments of W with at least two carbons inhibit tubulin. This appears to be a previously undefined subgenus of the genus set forth in WO02/060492 (WO02) cited herein. This document had been cited in support of a rejection for

obviousness under 35 U.S.C. §§ 102(a)/103 as the application was published 8 August 2002, less than one year prior to the priority date herein and is also citable under 35 U.S.C. § 102(e) as of its international filing date of 30 January 2002.

The genus disclosed in WO02 is much larger than the subgenus claimed. Importantly, there is no disclosure in WO02 of any tubulin inhibiting activity of any of the compounds therein described. The closest generic formula in WO02 to that of the present invention is set forth on page 9 thereon where three substituents of the phenyl ring are permitted, and indeed the phenyl ring directly coupled to pyrazine is only one alternative. A review of the compounds set forth in Tables 4 and 5 which are pyrazine derivatives show that the phenyl substituent (when present as opposed a pyrimidyl) has either one or three substituents and there are no compounds based on pyrazine in WO02 where the counterpart of W contains more than a single carbon atom.

Therefore, it is believed that the claims as presently drawn are not anticipated or made obvious by WO02.

Examination on the merits is requested.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 415852000800.

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Respectfully submitted,

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